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EXAMINER
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YOUNG, ASHLEY YA-SHEH

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* GIRISH BANGALORE RANGASWAMY,  
and ALEXANDER GOETZ  
(Applicant: SAP SE)

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Appeal 2016-001560  
Application 13/671,221  
Technology Center 3600

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Before BRUCE R. WINSOR, DAVID J. CUTITTA II, and  
PHILLIP A. BENNETT, *Administrative Patent Judges*.

CUTITTA, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the Final Rejection of claims 1–16, which constitute all of the pending claims in the application on appeal. Appeal Br. 1. We have jurisdiction over this appeal under 35 U.S.C. § 6(b).

We affirm.

## STATEMENT OF THE CASE

According to Appellants, the application relates to methods and “systems to efficiently associate attributes such as work schedules with employees.” Spec. ¶ 7.<sup>1</sup>

## CLAIMED SUBJECT MATTER

Claims 1, 2, 7, and 12 are independent. Claim 1 is representative and is reproduced below with disputed limitations in italics:

1. A computer-implemented method for automatically updating an employee business object, the method comprising:

*creating, by a processor, a first employment position business object, wherein the first employment position business object includes at least one work schedule attribute and represents a position applicable to at least one category of employee; and*

*associating, by the processor, an employee business object with the first employment position business object, wherein the employee business object represents an employee and inherits the at least one work schedule attribute in response to the association, and wherein at least one of the creating and the associating is initiated through a graphical user interface.*

Appeal Br. (Claims App’x. 1).

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<sup>1</sup> Throughout this Decision, we refer to the following documents for their respective details: (1) Appellants’ Specification filed November 7, 2012 (“Spec.”); (2) the Final Office Action (“Final Act.”) mailed January 30, 2015; (3) the Appeal Brief (“Appeal Br.”) filed June 29, 2015; (4) the Examiner’s Answer (“Ans.”) mailed September 22, 2015; and (5) the Reply Brief (“Reply Br.”) filed November 19, 2015.

## REJECTIONS

Claims 1–16 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Final Act. 4.

Claims 1–16 stand rejected under 35 U.S.C. § 102 (b) as anticipated by Rosenthal et al. (US 6,311,192 B1; Oct. 30, 2001). Final Act. 6–8.

Our review in this appeal is limited only to the above rejections and issues raised by Appellants. We have not considered other possible issues that have not been raised by Appellants and which are, therefore, not before us. *See* 37 C.F.R. § 41.37(c)(1)(iv).

## ISSUES

(1) Does the Examiner err in rejecting claims 1–16 under 35 U.S.C. § 101 as being directed to non-statutory subject matter?

(2) Does the Examiner err in finding Rosenthal discloses “creating, by a processor, a first employment position business object, wherein the first employment position business object includes at least one work schedule attribute and represents a position applicable to at least one category of employee,” as recited in claim 1?

(3) Does the Examiner err in finding Rosenthal discloses “associating, by the processor, an employee business object with the first employment position business object, wherein the employee business object represents an employee and inherits the at least one work schedule attribute in response to the association,” as recited in claim 1?

## CONTENTIONS AND ANALYSIS

### *Issue 1*

Appellants argue claims 1–16 as a group. Appeal Br. 3–8. We select independent claim 1 as representative. The remaining claims stand or fall with claim 1. *See* 37 C.F.R. §41.37(c)(1)(iv).

Under 35 U.S.C. § 101, an invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. The Supreme Court, however, has long interpreted § 101 to include an implicit exception: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *See, e.g., Alice Corp. Pty Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014).

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1300 (2012), “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice Corp.*, 134 S. Ct. at 2355. The first step in that analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts,” *id.*, e.g., to an abstract idea. If the claims are not directed to patent-ineligible concept, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered “individually and ‘as an ordered combination’” to determine whether there are additional elements that “‘transform the nature of the claim’ into a patent-eligible application.” *Alice Corp.*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1297).

The Court acknowledged in *Mayo*, that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Mayo*, 132 S. Ct. at 1293. We, therefore, look to whether the claims focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery. *See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016).

Here, in rejecting claim 1 under 35 U.S.C. § 101, the Examiner finds the claim “is drawn to the abstract idea of updating an employee business object, and furthermore does not include much else, individually or as an ordered combination, that transforms the nature of the claim into a patent-eligible application.” Final Act. 3. We agree with, and adopt as our own, the Examiner’s findings and analysis. *See* Final Act. 2–6; Ans. 2–5. We add the following primarily for emphasis.

In applying the first step of *Alice*, the Examiner finds the claimed method is “directed to the abstract idea of automatically updating an employee business contact, which is a method of organizing human activities, and therefore an idea of itself.” Final Act. 5.

Appellants argue the claim is not directed to an abstract idea because the Examiner’s determination is based “on an over-general characterization of the present claims.” Appeal Br. 7. Appellants further argue the “claims are directed to processes tailored for performance by a machine” and “[i]ndeed, a human does not create business objects and provide inheritance or associations among the business objects.” Appeal Br. 7–8.

We agree with the Examiner’s finding that “[a]lthough the claims recite specific steps of the abstract idea, those steps are still directed to an

abstract idea” and so we are not persuaded the analysis under the first step of *Alice* is in error. Ans. 5. Moreover, the recited method steps include the words “processor,” and “graphical user interface” but otherwise involve no more than information and steps for associating “an employee business object with the first employment position business object,” “wherein the first employment position business object includes at least one work schedule attribute.” In accordance with the Examiner’s interpretation of the claim term “business object,” discussed below under *Issue 2*, this is an activity that could be performed by a human, e.g., mentally, using pen and paper, and/or manually, without the use of a computer or any other machine, such as by placing a paper employment schedule for a job in an employee’s physical personnel folder. The law is clear that “a method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101.” *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372–73 (Fed. Cir. 2011); *see also Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) (“[p]henomena of nature . . . , mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.”). Although claim 1 recite[s] use of specific types of information” (Appeal Br. 7), such data and operations are merely part of the abstract idea itself, and can be performed manually or by human thought alone. Moreover, mental processes remain outside the realm of what is eligible for patenting even when automated to reduce the burden on the user of what once could have been done with pen and paper. *CyberSource*, 654 F.3d at 1375 (“That purely mental processes can be unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*.”).

Appellants argue “the present claims do not preempt the field of work scheduling” because “[o]ther solutions to the problem addressed by the present claims are possible.” Appeal Br. 7.

We find Appellants argument unpersuasive because Appellants do not explain how one would solve the problem addressed by claim 1 without falling within the claim scope. In any event, although the Supreme Court has described “the concern that drives this exclusionary principle [i.e., the exclusion of abstract ideas from patent eligible subject matter] as one of preemption” (*Alice*, 134 S. Ct. at 2354), we note that characterizing preemption as a driving concern for patent eligibility is not the same as characterizing preemption as the sole test for patent eligibility. “The Supreme Court has made clear that the principle of preemption is the basis for the judicial exceptions to patentability” and “[f]or this reason, questions on preemption are inherent in and resolved by the § 101 analysis.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (citing *Alice*, 134 S. Ct. at 2354). And although “preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Id.* Moreover, “[w]here a patent’s claims are deemed only to disclose patent ineligible subject matter under the [*Alice/Mayo*] framework . . . , preemption concerns are fully addressed and made moot.” *Id.*; see also *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 701 (2015) (“[T]hat the claims do not preempt all price optimization or may be limited to price optimization in the ecommerce setting do not make them any less abstract.”).

Thus, we agree with the Examiner that “the claims are drawn to a patent-ineligible abstract idea and are merely requiring generic computer



implementation, which fails to transform that abstract idea into a patent-eligible invention.” Ans. 2. We consequently find Appellants’ preemption arguments unpersuasive.

Appellants next argue independent claim 1 is not directed to an abstract idea because the claim is “directed to a solution necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” Appeal Br. 5 (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014)). We find this argument unpersuasive because we agree with the Examiner’s conclusion that “[w]hile the claimed invention may provide an improved algorithm for scheduling, there is no evidence (intrinsic or extrinsic) that the improvements improve the functioning of the computer.” Ans. 4.

In addition to the Examiner’s conclusion, we find Appellants’ argument unpersuasive because we find no parallel between claim 1 and the claims at issue in *DDR Holdings*. See *DDR Holdings*, 773 F.3d at 1249–1250. In *DDR Holdings*, the Federal Circuit determined that, although the patent claims at issue involved conventional computers and the Internet, the claims addressed the problem of retaining website visitors who, if adhering to the routine, conventional functioning of Internet hyperlink protocol, would be transported instantly away from a host’s website after “clicking” on an advertisement and activating a hyperlink. *DDR Holdings*, 773 F.3d at 1257. The Federal Circuit, thus, held that the claims were directed to statutory subject matter because they claim a solution “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *Id.*

No such technological advance is evident in the presently claimed invention. Unlike the situation in *DDR Holdings*, Appellants do not identify any problem particular to computers, computer networks, or the Internet that claim 1 allegedly overcomes. Instead, apart from the abstract idea, claim 1 merely employs generic computer components, such as a processor, to perform generic computer functions, e.g., “creating, by a processor, a first employment position business object” and “associating, by the processor, an employee business object with the first employment position business object.” Claims App’x. 1. Like the claimed invention in *Versata Development v. SAP*, the presently claimed invention can “be achieved ‘in any type of computer system or programming or processing environment,’ and accordingly ‘no specific, unconventional software, computer equipment, tools or processing capabilities are required.’” *Versata Development Group, Inc. v. SAP America, Inc.*, 793 F.3d 1306, 1327 (Fed. Cir. 2015).

Because we agree with the Examiner, at step one of the analysis, that the claims are directed to an abstract idea, we turn to the second step of the analysis, in which we must determine whether the additional elements of the claims transform them into patent-eligible subject matter.

Appellants argue the claims recite significantly more than an abstract idea because they “are provided to improve the functioning of the computer to be able to update an employee business object.” Ans. 5 (emphasis removed).

The Examiner finds, however, that because “the advantages cited assist with the business aspect, the automation of the process by reducing redundant entry merely reduces the manual input required by the business. As a whole, this does not change how the computer functions, nor does it

improve the processing of the computer.” Ans. 4. We agree with the Examiner’s finding that Appellants’ fail to persuasively establish the claimed invention improves the functioning of the computer. *Id.* Here, unlike in *Enfish*, the claims are directed to an improvement to the abstract concept of associating an employee business object with an employment position business object, without more, and thus are “instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.” *Enfish*, 822 at 1336.

The Examiner also finds “[t]he claims do not purport to identify new computer hardware; rather, they merely assume the availability of physical components for input, memory, look-up, comparison, and output. When viewed as a whole, the claims amount to nothing more than generic computer functions merely used to implement the abstract idea.” Ans. 7. Thus, the claim merely recites “insignificant post-solution activity.”

We agree with the Examiner that claim 1 does not contain an inventive concept sufficient to “transform the nature of the claim” into a patent-eligible application. *Alice*, 134 S. Ct. at 2355. The elements of claim 1 simply recite an abstract idea executed using computer technology. That is, beyond the abstract idea of updating an employee business object, the claim merely recites “well-understood, routine conventional activit[ies],” either by requiring conventional computer activities or routine data-gathering steps. *Alice*, 134 S. Ct. at 2359 (quoting *Mayo*, 132 S. Ct. at 1294) (alterations in original). In addition, we agree with the Examiner that Appellants’ Specification “supports that the claimed invention is merely implemented on any computer system,” (Ans. 2) e.g., a generic computer, laptop, tablet, client computer, or server. Spec. ¶ 27. We, therefore, are not

persuaded the Examiner errs in concluding that “the claims are drawn to a patent-ineligible abstract idea and are merely requiring generic computer implementation, which fails to transform that abstract idea into a patent-eligible invention.” Ans. 2.

For the reasons discussed above, the Examiner correctly determines that claim 1 is directed to non-statutory subject matter and so we sustain the rejection of claim 1 under 35 U.S.C. § 101. Claims 2–16, which are not argued separately, are rejected for similar reasons.

### *Issue 2*

The Examiner finds the limitation “creating, by a processor, a first employment position business object, wherein the first employment position business object includes at least one work schedule attribute and represents a position applicable to at least one category of employee,” as recited in claim 1, is disclosed by Rosenthal’s description of “the workflow for change approval according to type.” Final Act. 7 (citing Rosenthal Figs. 3, 4, and 1:38–55, 5:25–31, and 5:38–43).

Appellants argue the Examiner errs in finding Rosenthal discloses the disputed limitation because “the modules described by Rosenthal cannot be interpreted to be the claimed first employment position business object. This is because a business object, as understood by one of ordinary skill in the art, models business processes and business data and can exchange data with other business objects.” Appeal Br. 8.

Appellants’ arguments are unpersuasive. At the outset, we note the Examiner clarifies that “the modules themselves are not intended to be analogous to employment position business object, but rather that the

modules are utilized in the creation and associating of the various business objects.” Ans. 5. The Examiner next indicates that the claimed business object is interpreted as “any object that represents a particular entity of the business.” *Id.* In view of this interpretation, the Examiner finds Rosenthal discloses creating a first employment position business object, as claimed, “where the personnel development module displays attribute change screens, where position attributes are listed and can be altered to create/customize the particular position in question.” Ans. 6 (citing Rosenthal col. 5–6).

We find Appellants’ argument unpersuasive because Appellants fail to establish the Examiner’s interpretation of “business object” is *not* the broadest reasonable interpretation consistent with Appellant’s Specification. *See In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). Under a broadest reasonable interpretation, the words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification. *Chef America, Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1372 (Fed. Cir. 2004). The plain meaning of a term is the ordinary and customary meaning given to the term by those of ordinary skill in the art at the time of the invention. *In re Suitco Surface, Inc.*, 603 F.3d 1255, 1259–60 (Fed. Cir. 2010). The presumption that a term is given its ordinary and customary meaning may be rebutted by Appellants clearly setting forth a different definition of the term in the specification. *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

Here, Appellants provide no express definition of the term from the Specification. Appellants also fail to establish the Examiner’s interpretation of “business object” is inconsistent with the Specification (*Chef America*,

*Inc.* 358 F.3d at 1372). Accordingly, we find unpersuasive Appellants' argument that the Examiner's interpretation is unreasonably broad.

In light of the Examiner's reasonable interpretation of the claimed content, we agree with the Examiner's finding that Rosenthal's "creation of the customized position by selecting the particular combination of position attributes" such as a work schedule attribute ("Hrs per week") discloses creating "a first employment business object," as claimed. Ans. 6 (citing Rosenthal col. 5–6), *see also* Rosenthal Fig. 3.

Appellants further argue Rosenthal does not disclose creating a first employment position business object because "Rosenthal generally describes using its modules but does not specifically disclose or suggest creating the modules." Appeal Br. 9.

We find this argument unpersuasive because we agree with the Examiner's finding that Rosenthal allows for a user to customize attributes associated with a position using the position attributes screen. Ans. 6 (citing Rosenthal col. 5–6). Thus, by entering a new job code (Rosenthal Fig. 2, 103, Fig. 5, 106) the user causes the system to *create* a new employment position business object along with the relevant attribute information such as work schedule attributes. *Id.* As a specific example, Rosenthal explains that when "the user enter[s] a new job code in blank 106 of FIG. 4 (6:6–7), "[c]ontrol is then transferred at 120 to a SUBMIT routine, which handles implementation of the proposed change," i.e., creating the new employment position business object (6:62–64).

We therefore agree with and adopt the Examiner's findings, as discussed above, as they persuade us Rosenthal discloses the limitation "creating, by a processor, a first employment position business object,

wherein the first employment position business object includes at least one work schedule attribute and represents a position applicable to at least one category of employee,” as recited in claim 1. (Ans. 5–8).

*Issue 3*

The Examiner finds the limitation “associating, by the processor, an employee business object with the first employment position business object, wherein the employee business object represents an employee and inherits the at least one work schedule attribute in response to the association,” as recited in claim 1, is disclosed by Rosenthal’s description of “using the personnel development module and personnel administration module . . . for handling employee specific work force planning.” Ans. 7 (citing Rosenthal 7:8–20, 7:45–60, and 7:61– 8:15).

Appellants argue the Examiner errs because Rosenthal “is silent on business objects, and, correspondingly, that the employee business object represents an employee and inherits the at least one work schedule attribute in response to an *association* of an employee business object with the first employment position business object.” Appeal Br. 9.

Appellants’ arguments are unpersuasive. As the Examiner correctly finds, in Rosenthal, “a user may change the employee/work position association by altering the administrative assignment.” Ans. 7 (citing Rosenthal 7:8–20). Thus, in Rosenthal, “a particular person or employee [may be] temporarily assigned to a different position for a limited time period, according to the listed position attributes.” Ans. 7 (citing Rosenthal 7:16–38).

The Examiner continues,

By reassigning a particular person to a different job position with different position attributes (see col. 8, lines 3–10; i.e. associating the employee with the employment position business object), the employee inherits the work schedule attribute of the position, where the employee is now affiliated with the particular attributes of the job as defined previously, (e.g. duration of time for the position, being a full time/permanent employee or simply being a temporary transfer employee, etc. (see Fig. 7).

Ans. 7.

That is, by using system 10 to reassign an employee to a different job position Rosenthal discloses associating an employee business object with a first employment position business object. The employee then inherits the work schedule attribute of the position as a result of the associating. Accordingly, we agree with and adopt the Examiner’s findings discussed above, as they persuade us Rosenthal discloses the disputed limitation.

Ans. 5–8.

In their Reply, Appellants respond with two arguments. First, Appellants argue Rosenthal cannot disclose associating the objects as claimed because “Rosenthal does not teach or suggest the creation of any business objects.” Reply Br. 4–5. Because we agree with the Examiner’s finding that Rosenthal discloses business objects, as discussed above under *Issue 2*, we find this argument unpersuasive.

Second, Appellants argue “Rosenthal’s description of changing an employee’s assignment from one position to another and of managing an employee’s skills does not teach or suggest the inheritance of one or more



work schedule attributes in response to an association of these objects, as claimed.” Reply Br. 4–5.

Appellants’ argument is unpersuasive for lack of persuasive evidence or reasoned explanation in support of the asserted conclusion. Attorney argument alone is afforded little weight in the absence of persuasive evidence. *In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997) (“It is well settled that mere attorney arguments and conclusory statements, which are unsupported by factual evidence, are entitled to little probative value.”).

Accordingly, we sustain the Examiner’s rejection of claim 1 under 35 U.S.C. § 102. We also sustain the Examiner’s § 102 rejection of independent claims 2, 7, and 12, the patentability of which is argued for similar reasons as independent claim 1. Appeal Br. 8. Dependent claims 3–6, 8–11, and 13–16, are not argued separately, so the rejection of these claims is sustained for the reasons given for their respective independent claims. Appeal Br. 8–10. See 37 C.F.R. § 41.37(c)(1)(iv).

#### DECISION

We affirm the Examiner’s decision rejecting claims 1–16 under 35 U.S.C. § 101.

We affirm the Examiner’s decision rejecting claims 1–16 under 35 U.S.C. § 102.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED